

[illegible]


```
1 0001 0 MODULE getlin ( IDENT = 'V04-000'
2 P 0002 0 %BLISS32[, ADDRESSING_MODE (EXTERNAL = LONG_RELATIVE,
3 0003 0 NONEXTERNAL = LONG_RELATIVE)]
4 0004 0 ) =
5 0005 1 BEGIN
6 0006 1
7 0007 1
8 0008 1 *****
9 0009 1 *
10 0010 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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27 0027 1 *
28 0028 1 *
29 0029 1 *****
30 0030 1
31 0031 1
32 0032 1 ++
33 0033 1 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
34 0034 1
35 0035 1 ABSTRACT: Picks up a line of text and centers it for output.
36 0036 1
37 0037 1 ENVIRONMENT: Transportable
38 0038 1
39 0039 1 AUTHOR: R.W.Friday CREATION DATE: July, 1978
40 0040 1
41 0041 1
```

Revision History

:	43	0042	1	%SBTTL 'Revision History'
:	44	0043	1	
:	45	0044	1	MODIFIED BY:
:	46	0045	1	
:	47	0046	1	005 KFA00005 Ken Alden 16-Mar-1983
:	48	0047	1	PUSH/POP_SCA now visible to DSR.
:	49	0048	1	
:	50	0049	1	004 RER00004 Ron Randall 07-Mar-1983
:	51	0050	1	Global edit of all modules. Updated module names, idents,
:	52	0051	1	copyright dates. Changed require files to BLISS library.
:	53	0052	1	
:	54	0053	1	--
:	55	0054	1	

Module Level Declarations

```

57 0055 1 %SBTTL 'Module Level Declarations'
58 0056 1
59 0057 1
60 0058 1 TABLE OF CONTENTS:
61 0059 1
62 0060 1 INCLUDE FILES:
63 0061 1
64 0062 1 LIBRARY 'NXPORT:XPORT';      ! XPORT Library
65 0063 1 REQUIRE 'REQ:RNODEF';      ! RUNOFF variant definitions
66 0194 1
67 U 0195 1 %IF DSRPLUS %THEN
68 U 0196 1 LIBRARY 'REQ:DPLLIB';      ! DSRPLUS BLISS Library
69 0197 1 %ELSE
70 0198 1 LIBRARY 'REQ:DSRLIB';      ! DSR BLISS Library
71 0199 1 %FI
72 0200 1
73 0201 1
74 0202 1 EXTERNAL REFERENCES:
75 0203 1
76 0204 1 EXTERNAL LITERAL
77 0205 1 RINTES : UNSIGNED (8);
78 0206 1
79 0207 1 EXTERNAL
80 0208 1 GCA : GCA_DEFINITION,
81 0209 1 MRA : REF_FIXED_STRING,
82 0210 1 SCA : SCA_DEFINITION,
83 0211 1 TSF : TSF_DEFINITION,
84 0212 1 TTABLE : COUNTED_LIST;
85 0213 1
86 0214 1 EXTERNAL ROUTINE
87 0215 1 ENDCHR,
88 0216 1 ENDWRD,
89 0217 1 ERMA,
90 0218 1 ERML,
91 0219 1 OUTNJ,
92 0220 1 SCANT,
93 0221 1 SETCAS;
94 0222 1
95 0223 1 EXTERNAL LITERAL      !Error messages
96 0224 1 RNFCJL,
97 0225 1 RNFTTL;
98 0226 1
99 0227 1
100 0228 1 OWN STORAGE:
101 0229 1
102 0230 1 OWN
103 0231 1 PP_SCA : $H_R_SCA_BLOCK;    !Used in PUSH_SCA, POP_SCA macros (defined in SCA.REQ).
```



```
105 0232 1 GLOBAL ROUTINE GETLIN (PRESCAN, DO_CASE, TRANSLATION, DO_OUTPUT) : NOVALUE =
106 0233 1
107 0234 1 ++
108 0235 1 FUNCTIONAL DESCRIPTION:
109 0236 1
110 0237 1 Starting with the current position, GETLIN parses up to
111 0238 1 the first ';' or end-of-line; the resulting line is
112 0239 1 centered and output.
113 0240 1
114 0241 1 FORMAL PARAMETERS:
115 0242 1
116 0243 1 PRESCAN - If true, scanning stops when the first '.'
117 0244 1 is found. Otherwise, scanning goes to the
118 0245 1 end of the record.
119 0246 1 DO_CASE - If true, then TRANSLATION indicates which
120 0247 1 case rules are to be applied.
121 0248 1 TRANSLATION -
122 0249 1 DO_OUTPUT - If true, then output the scanned text,
123 0250 1 else, skip output related code.
124 0251 1
125 0252 1 IMPLICIT INPUTS: None
126 0253 1
127 0254 1 IMPLICIT OUTPUTS: None
128 0255 1
129 0256 1 ROUTINE VALUE:
130 0257 1 COMPLETION CODES: None
131 0258 1
132 0259 1 SIDE EFFECTS: None
133 0260 1 --
134 0261 1
135 0262 2 BEGIN
136 0263 2 LOCAL
137 0264 2 HOLD TAB_COUNT,
138 0265 2 SCA_HOLD: VECTOR [SCA_SIZE];
139 0266 2
140 0267 2 !Preserve SCA so flags in text don't cause changes
141 0268 2 !to the formatting environment.
142 0269 2
143 0270 2 PUSH_SCA: !Save the Special SAVED SCA bits.
144 0271 2
145 0272 2 INCR I FROM 0 TO SCA_SIZE - 1 DO
146 0273 2 SCA_HOLD [I] = SCA [I];
147 0274 2
148 0275 2 !Set up SCA so SCANT preserves white space; lots of room
149 0276 2 !is provided so a new line doesn't get started unless
150 0277 2 !the user makes an error.
151 0278 2 SCA_FILL = FALSE;
152 0279 2 SCA_JUSTIFY = FALSE;
153 0280 2 SCA_LM = 0;
154 0281 2 SCA_RM = 150; !Maximum width line.
155 0282 2 SCA_PRESCAN = .PRESCAN; !Indicate when processing stops.
156 0283 2
157 0284 2 IF .DO_CASE
158 0285 2 THEN
159 0286 2 SETCAS (.TRANSLATION); !Establish specified case rules.
160 0287 2
161 0288 2 !Preserve tab count; temporarily set it to zero
```



```
162      0289      2      !so tabs get treated like spaces.
163      0290      2      HOLD TAB COUNT = .TTABLE [CL_INDEX];
164      0291      2      TTABLE [CL_INDEX] = 0;
165      0292      2
166      0293      2      SCANT ();      !Scan one input line.
167      0294      2
168      0295      2      ! Drop trailing spaces, unless at least one of them is
169      0296      2      ! underlined.  SCA_WRD_CPEND is equal to RINTES if a space/tab
170      0297      2      ! was encountered after the last character on the line.
171      0298      2
172      0299      2      IF .SCA_WRD_CPEND EQL RINTES
173      0300      2      THEN
174      0301      2
175      0302      2      IF .SCA_WRD_LST_UND EQL 0
176      0303      2      THEN
177      0304      2      !None of the trailing spaces were underlined.
178      0305      2      !This means that it is safe to drop them.
179      0306      2      SCA_WRD_LST_SP = 0;
180      0307      2
181      0308      2      !The call on ENDWRD is made here, rather than letting
182      0309      2      !OUTNJ do it.  The reason it's done here is so that
183      0310      2      !TSF_EXT_HL gets updated, so that the length of the
184      0311      2      !text can be obtained.
185      0312      2      ENDWRD (FALSE, FALSE, FALSE);
186      0313      2
187      0314      2      !Check to see that the text retrieved is not too long
188      0315      2      IF .TSF_EXT_HL GTR .GCA_LWIDTH
189      0316      2      THEN
190      0317      2      BEGIN
191      0318      2      ERMA (RNFTTL, FALSE);      !Text cannot possibly be centered
192      0319      2      TSF_EXT_HL = 0;      !Fix up TSF_EXT_HL. The entire line still gets printed.
193      0320      2      END;
194      0321      2
195      0322      2      !Restore SCA so actual margins can be used.
196      0323      2      INCR I FROM SCA_CASE_SIZE TO SCA_SIZE - 1 DO      !NOTE: modified case rules 'play through'.
197      0324      2      SCA [I] = .SCA_HOLD [I];
198      0325      2
199      0326      2      POP_SCA;      !Restore the special SAVED SCA bits.
200      0327      2
201      0328      2      TTABLE [CL_INDEX] = .HOLD_TAB_COUNT;      !Restore tab count
202      0329      2
203      0330      2      IF NOT .DO_OUTPUT      ! If output was not wanted,
204      0331      2      THEN RETURN;      ! it best we return now. Otherwise, proceeding
205      0332      2      ! beyond here will generate output.
206      0333      2
207      0334      2      !Compute and validate number of spaces that have to
208      0335      2      !be inserted on the left to center the line
209      0336      2      TSF_ADJUST = .SCA_LM + (.SCA_RM - .SCA_LM - .TSF_EXT_HL)/2;
210      0337      2
211      0338      2      IF .TSF_ADJUST LSS 0
212      0339      2      THEN
213      0340      2      BEGIN
214      0341      2      ERML (RNFCJL);      !It's not possible to center the line.
215      0342      2      TSF_ADJUST = 0;      !Setting tsf_adjust to zero causes the line
216      0343      2      END;      !to go out against the left edge of the page.
217      0344      2
218      0345      2      !Force out the line of text
```


GETLIN
V04-000

Module Level Declarations

: 219
: 220

0346 2 OUTNJ ();
0347 1 END;

!End of GETLIN

K 2
16-Sep-1984 00:39:00
14-Sep-1984 13:06:31

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]GETLIN.BLI;1

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```
.TITLE GETLIN
.IDENT \V04-000\

.PSECT $OWNS$,NOEXE,2

00000 PP_SCA: .BLKB 48

.EXTRN RINTES, GCA, MRA
.EXTRN SCA, TSF, TTABLE
.EXTRN ENDCHR, ENDWRD, ERMA
.EXTRN ERML, OUTNJ, SCANT
.EXTRN SETCAS, RNFCJL, RNFTTL

.PSECT $CODE$,NOWRT,2

.ENTRY GETLIN, Save R2,R3,R4,R5,R6
MOVAB TTABLE+4, R6
MOVAB TSF, R5
MOVAB PP_SCA, R4
MOVAB SCA+116, R3
MOVAB -384(SP), SP
MOVL @SCA+100, PP_SCA
MOVL @SCA+104, PP_SCA+4
MOVL @SCA+108, PP_SCA+8
MOVL @SCA+112, PP_SCA+12
MOVL @SCA+116, PP_SCA+16
MOVL @SCA+120, PP_SCA+20
MOVL @SCA+124, PP_SCA+24
MOVL @SCA+128, PP_SCA+28
MOVL @SCA+132, PP_SCA+32
MOVL @SCA+136, PP_SCA+36
MOVL @SCA+140, PP_SCA+40
MOVL @SCA+144, PP_SCA+44
CLRL I
MOVL SCA[I], SCA_HOLD[I]
AOBLEQ #95, I, 1$
CLRL @SCA+104
CLRL @SCA+100
CLRL @SCA+116
MOVZBL #150, @SCA+120
MOVL PRESCAN, SCA+172
BLBC DO CASE, 2$
PUSHL TRANSLATION
CALLS #1, SETCAS
MOVL TTABLE+4, HOLD_TAB_COUNT
CLRL TTABLE+4
CALLS #0, SCANT
CMPL SCA+280, #RINTES
BNEQ 3$
TSTL SCA+340
BNEQ 3$
CLRL SCA+332
CLRQ -(SP)
```

007C 00000
56 00000000G EF 9E 00002
55 00000000G EF 9E 00009
54 00000000G EF 9E 00010
53 00000000G EF 9E 00017
5E FE80 CE 9E 0001E
64 F0 B3 D0 00023
04 A4 F4 B3 D0 00027
08 A4 F8 B3 D0 0002C
0C A4 FC B3 D0 00031
10 A4 00 B3 D0 00036
14 A4 04 B3 D0 0003B
18 A4 08 B3 D0 00040
1C A4 0C B3 D0 00045
20 A4 10 B3 D0 0004A
24 A4 14 B3 D0 0004F
28 A4 18 B3 D0 00054
2C A4 1C B3 D0 00059
50 D4 0005E
6E40 8C A340 D0 00060 1\$:
F2 50 0000005F 8F F3 00066
F4 B3 D4 0006E
F0 B3 D4 00071
00 B3 D4 00074
04 B3 96 8F 9A 00077
38 A3 04 AC D0 0007C
0A 08 AC E9 00081
0C AC DD 00085
00000000G EF 01 FB 00088
52 66 D0 0008F 2\$:
00000000G EF 66 D4 00092
00000000G EF 00 FB 00094
00A4 C3 D1 0009B
0A 12 000A4
00E0 C3 D5 000A6
04 12 000AA
00D8 C3 D4 000AC
7E 7C 000B0 3\$:

0232
0265
0272
0273
0278
0279
0280
0281
0282
0284
0286
0290
0291
0293
0299
0302
0306
0312

00000000G	EF		7E	D4	000B2	CLRL	-(SP)		
	50		03	FB	000B4	CALLS	#3, ENDWRD		
00000000G	FF	04	65	D0	000BB	MOVL	TSF, R0	0315	
			A0	D1	000BE	CMPL	4(R0), @GCA+140		
			15	15	000C6	BLEQ	4\$		
			7E	D4	000C8	CLRL	-(SP)	0318	
00000000G	EF	00000000G	8F	DD	000CA	PUSHL	#RNFTTL		
	50		02	FB	000D0	CALLS	#2, ERMA		
			65	D0	000D7	MOVL	TSF, R0		
			A0	D4	000DA	CLRL	4(R0)	0319	
	50		19	D0	000DD	MOVL	#25, I	0323	
F2	8C	A340	6E40	D0	000E0	MOVL	SCA_HOLD[I], SCA[I]	0324	
	50	0000005F	8F	F3	000E6	AOBLEQ	#95, I, 5\$		
	F0	B3	64	D0	000EE	MOVL	PP_SCA, @SCA+100		
	F4	B3	04	A4	D0	000F2	MOVL	PP_SCA+4, @SCA+104	
	F8	B3	08	A4	D0	000F7	MOVL	PP_SCA+8, @SCA+108	
	FC	B3	0C	A4	D0	000FC	MOVL	PP_SCA+12, @SCA+112	
	00	B3	10	A4	D0	00101	MOVL	PP_SCA+16, @SCA+116	
	04	B3	14	A4	D0	00106	MOVL	PP_SCA+20, @SCA+120	
	08	B3	18	A4	D0	0010B	MOVL	PP_SCA+24, @SCA+124	
	0C	B3	1C	A4	D0	00110	MOVL	PP_SCA+28, @SCA+128	
	10	B3	20	A4	D0	00115	MOVL	PP_SCA+32, @SCA+132	
	14	B3	24	A4	D0	0011A	MOVL	PP_SCA+36, @SCA+136	
	18	B3	28	A4	D0	0011F	MOVL	PP_SCA+40, @SCA+140	
	1C	B3	2C	A4	D0	00124	MOVL	PP_SCA+44, @SCA+144	
	66		52	D0	00129	MOVL	HOLD TAB COUNT, TTABLE+4	0328	
	32		AC	E9	0012C	BLBC	DO OUTPUT, 7\$	0330	
	50		65	D0	00130	MOVL	TSF, R0	0331	
51	04	B3	00	B3	C3	00133	SUBL3	@SCA+116, @SCA+120, R1	0336
	51		04	A0	C2	00139	SUBL2	4(R0), R1	
	51		02	C6	0013D	DIVL2	#2, R1		
28	A0	51	00	B3	C1	00140	ADDL3	@SCA+116, R1, 40(R0)	
			13	18	00146	BGEQ	6\$	0338	
		00000000G	8F	DD	00148	PUSHL	#RNFCJL	0341	
	00000000G	EF	01	FB	0014E	CALLS	#1, ERML		
		50	65	D0	00155	MOVL	TSF, R0		
			A0	D4	00158	CLRL	40(R0)	0342	
	00000000G	EF	00	FB	0015B	CALLS	#0, OUTNJ	0346	
			04	00162	7\$:	RET		0347	

; Routine Size: 355 bytes, Routine Base: \$CODE\$ + 0000

:	221	0348	1		
:	222	0349	1	END	!End of module
:	223	0350	0	ELUDOM	

PSECT SUMMARY

Name	Bytes	Attributes
\$OWN\$	48	NOVEC, WRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPI,ALIGN(2)

GETLIN
V04-000

Module Level Declarations

M 2
16-Sep-1984 00:39:00
14-Sep-1984 13:06:31

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]GETLIN.BLI;1

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: \$CODE\$ 355 NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]XPORT.L32;1	590	0	0	252	00:00.2
_\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	47	3	86	00:00.3

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:GETLIN/OBJ=OBJ\$:GETLIN MSRC\$:GETLIN/UPDATE=(ENH\$:GETLIN)

: Size: 355 code + 48 data bytes
: Run Time: 00:09.6
: Elapsed Time: 00:28.8
: Lines/CPU Min: 2185
: Lexemes/CPU-Min: 18293
: Memory Used: 95 pages
: Compilation Complete

0342

AH-BT13A-SE
 VAX/VMS V4.0

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